



POSTER PRESENTATION

Open Access

Epidemiological features of BLV natural infection

Marina Lomonaco¹, Irene Alvarez¹, Cecilia Martínez¹, Natalia Porta¹, Ramiro Merlini¹, Hugo Carignano², Gerónimo Gutiérrez¹, Karina Trono^{1*}

From 16th International Conference on Human Retroviruses: HTLV and Related Viruses
Montreal, Canada. 26-30 June 2013

Dairy farms are heavily infected with Bovine Leukemia Virus (BLV) in Argentina and many other countries, where a control strategy should be design based on the behavior of natural. We conducted a series of studies with the aim to better understand the epidemiology of BLV. Infected new born calves were present in 3 studied farms (8.3%-11%). Proviral load (PVL) was very low in 9/10 new born analyzed calves but rapidly augmented during the first months of age. Cross-sectional studies showed that the rate of high PVL between seroreactors raised together with the prevalence, from 20.2% at 8 months of age to 44.4% in 26 months heifers, with similar levels to adult lactating cows of the same farm. Low fluctuation of blood PVL was observed on animals with naturally-acquired infections. We also observed 10 seroconversions between young heifers with an initial elevation of PVL. The presence of provirus in colostrum was significantly correlated with blood PVL ($p \leq 0.0001$). Provirus in milk was detectable in bulk tank (17.2%) and individual samples (40.4%). Colostrum of individual cows showed different provirus/antibodies dual profiles that permit to speculate about different infective/protective potential among infected animals. These findings suggest animals would be exposed to the infective challenge since a very young age. Consequently, it must be control as soon as possible after birth. The main focus should be put on the new-born infected calves that could play the role of main propagators together with the putative oral exposition through colostrum and milk.

Authors' details

¹Instituto de Virologia, INTA, Castelar, Argentina. ²Instituto de Genetica, INTA, Castelar, Argentina.

Published: 7 January 2014

* Correspondence: ktrono@cni.inta.gov.ar

¹Instituto de Virologia, INTA, Castelar, Argentina

Full list of author information is available at the end of the article

doi:10.1186/1742-4690-11-S1-P45

Cite this article as: Lomonaco et al.: Epidemiological features of BLV natural infection. *Retrovirology* 2014 **11**(Suppl 1):P45.

Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit

